

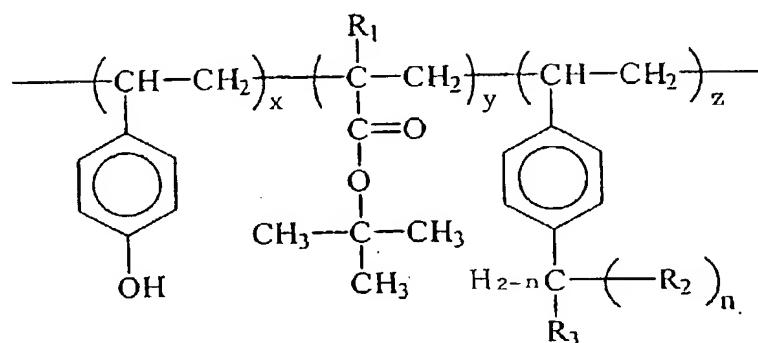
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PCT/KR00/00956

WHAT IS CLAIMED IS:

1. A polymer for a chemically amplified resist represented by the following Formula 1:

5 [Formula 1]



Wherein  $\text{R}_1$  is hydrogen or methyl,  $\text{R}_2$  is hydrogen or  $\text{CH}_2\text{CH}_2\text{COOC}(\text{CH}_3)_3$ ,  $\text{R}_3$  is Cl, Br, hydroxy, cyano, t-butoxy,  $\text{CH}_2\text{NH}$ ,  $\text{CONH}_2$ ,  $\text{CH}=\text{NH}$ ,  $\text{CH}(\text{OH})\text{NH}_2$  or  $\text{C}(\text{OH})=\text{NH}$ .

10  $x + y + z = 1$ ,  $x$  is 0.1 – 0.9,  $y$  is 0.01 – 0.89,  $z$  is 0.01 – 0.89,

$n$  is 1 or 2, and when  $n$  is 2, both  $\text{R}_2$  are the same.

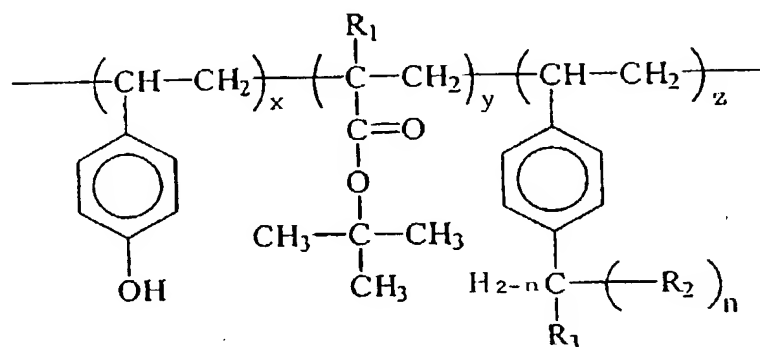
2. The polymer for a chemically amplified resist according to claim 1, wherein said polymer has a molecular weight of 3,000 to 30,000 and a degree of dispersion of 1.01 to 3.00.
- 15 3. A light sensitive resist composition comprising

a) a polymer represented by the following formula 1:

[Formula 1]

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Wherein  $R_1$  is hydrogen or methyl,  $R_2$  is hydrogen or  $\text{CH}_2\text{CH}_2\text{COOC}(\text{CH}_3)_3$ ,  $R_3$  is Cl, Br, hydroxy, cyano, t-butoxy,  $\text{CH}_2\text{NH}$ ,  $\text{CONH}_2$ ,  $\text{CH}=\text{NH}$ ,  $\text{CH}(\text{OH})\text{NH}_2$  or  $\text{C}(\text{OH})=\text{NH}$ ,

5  $x + y + z = 1$ ,  $x$  is 0.1 – 0.9,  $y$  is 0.01 – 0.89,  $z$  is 0.01 – 0.89,

$n$  is 1 or 2, and when  $n$  is 2, both  $R_2$  are the same.

b) an acid producing agent; and

c) a solvent.

4. A light sensitive resist composition according to claim 3, wherein said  
10 polymer represented by Formula 1 is contained in the composition in an amount of 0.1 to 50 wt%.

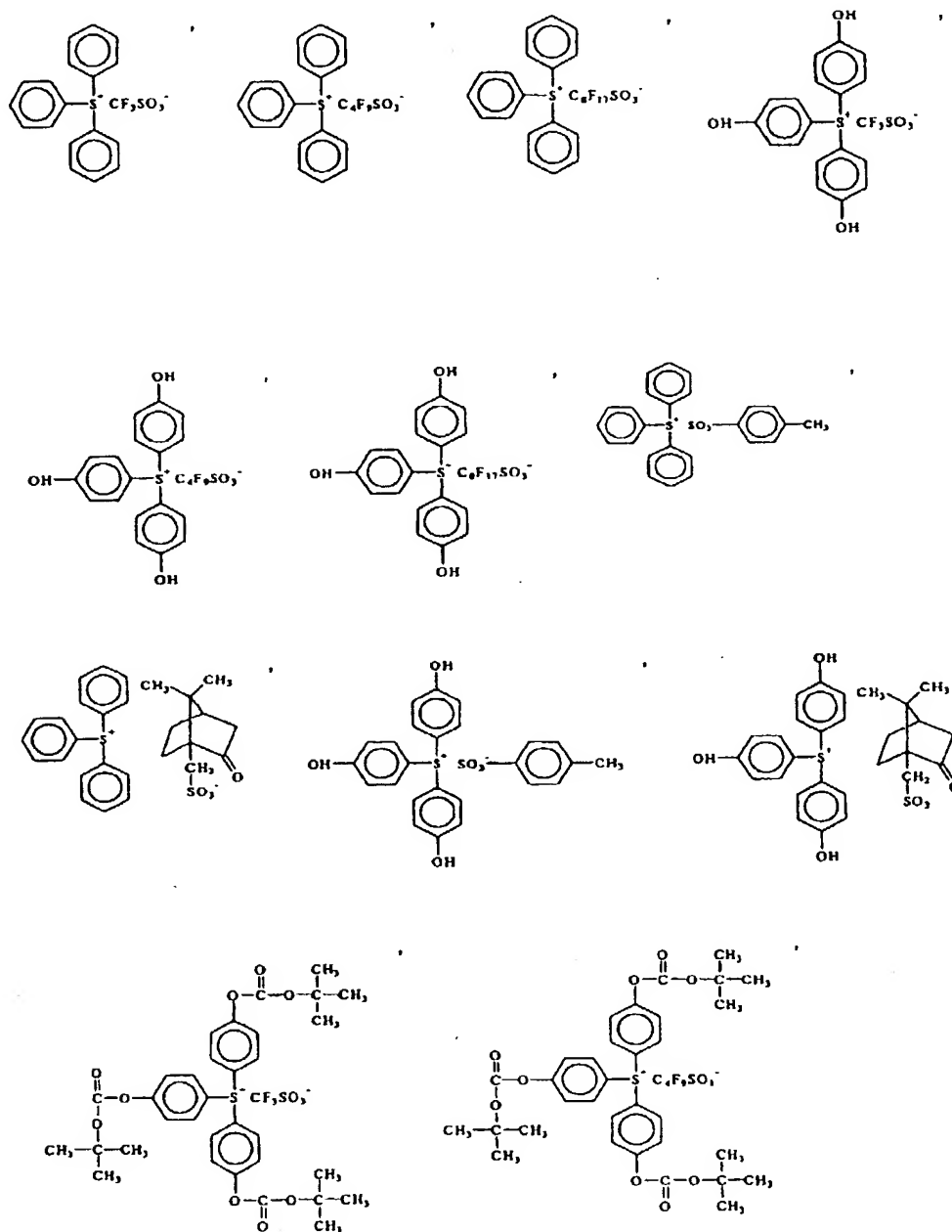
5 A light sensitive resist composition according to claim 3, wherein said b)

acid producing agent is selected from the group consisting of:

sulfonium salt selected from:

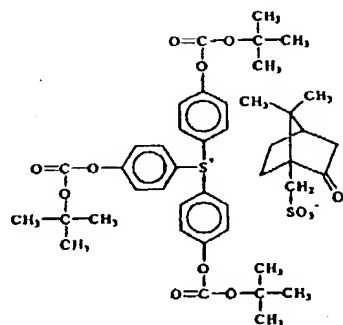
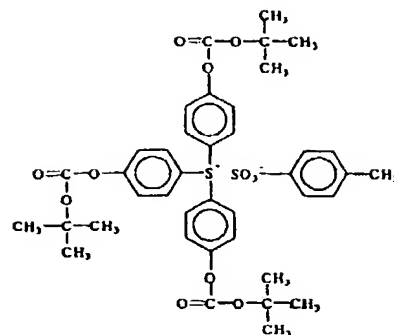
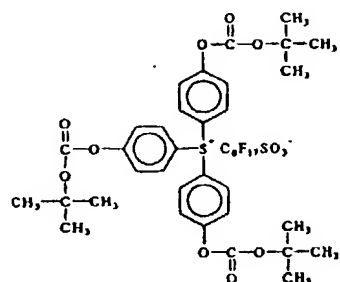
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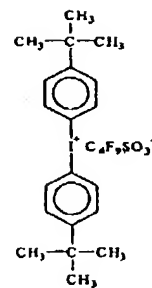
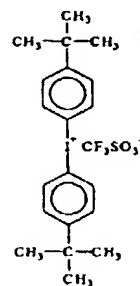
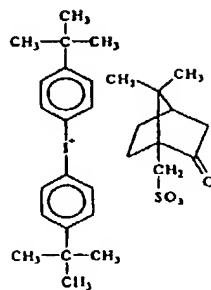
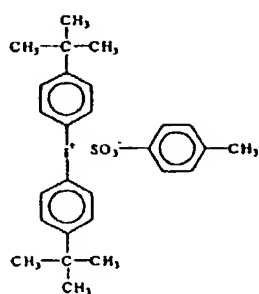


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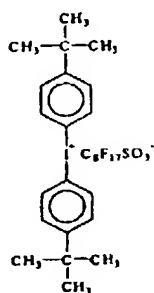


iodonium salt selected from:

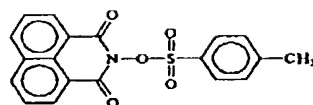
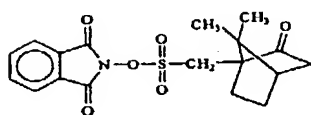
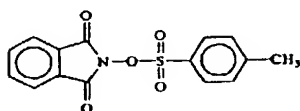


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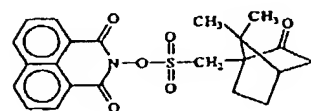
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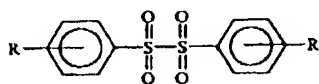
N-iminosulfonates selected from:



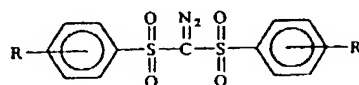
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disulfonates which is

(Wherein R is H,  $-\text{CH}_3$  or  $-\text{C}(\text{CH}_3)_3$ )

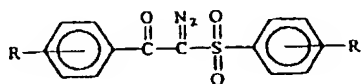
bisarylsulfonyldiazomethane which is



10

(Wherein R is H,  $-\text{CH}_3$  or  $-\text{C}(\text{CH}_3)_3$ )

arylcarbonylarylsulfonyldiazomethane which is



(Wherein R is H, -CH<sub>3</sub> or -C(CH<sub>3</sub>)<sub>3</sub>),

and a mixture thereof,

5 and said acid producing agent is contained in the composition in an amount of 0.1 to 50 wt%.

6. A light sensitive chemically amplified resist composition according to claim 3, wherein said c) solvent is selected from the group consisting of ethyleneglycol monoethylether acetate, propyleneglycol monomethylether  
 10 acetate, ethylether acetate, n-butyl acetate, methyl isobutyl ketone, ethyl lactate, 3-ethoxy-ethylpropionate, 3-methoxy-methylpropionate, diglycol monoethylether, 2-heptanone, diacetonealcohol,  $\beta$ -methoxyisobutyric acid methyl ester, propyleneglycol monomethylether, propyleneglycol monomethylpropionate, methyl lactate, butyl lactate, ethyl pyruvate,  $\gamma$ -  
 15 butyrolactone, and a mixture thereof, and said solvent is contained in the composition in an amount of 0.1 to 99 wt%.